

ACC NR: AP6032280

SOURCE CODE: UR/0020/66/170/002/0371/0374

AUTHOR: Maksimov, Yu. Ya.; Dubovitskiy, V. F.

ORG: Moscow Chemical Technology Institute im. D. I. Mendeleyev (Moskovskiy khimiko-tehnologicheskiy institut)

TITLE: Kinetics of thermal decomposition of dinitrobenzene isomers in the gas phase

SOURCE: AN SSSR. Doklady, v. 170, no. 2, 1966, 371-374

TOPIC TAGS: dinitrobenzene, thermal decomposition, benzene derivative, isomer

ABSTRACT: The effect of the relative position of nitro groups in the benzene ring of dinitrobenzene on the kinetics of its gas phase decomposition has been studied by a method employing Bourdon gages. Thoroughly evacuated 20–30 cm³ vessels containing the sample were sealed and placed in a thermostat. It was found that on decomposition of o-, p-, or m-dinitrobenzene, the pressure rise rates. A reaction temperature change in the range 300–350°C had little effect on the course of the p(t) curves which retained their S-like shape. With decreasing temperature, the degree of autoacceleration increased. The degree of autoacceleration was greater for the para and meta isomers. For all three isomers the p(t) curves fitted well the equation of a simple autocatalytic reactor:

$$\frac{dx}{dt} = k_1(a-x) + k_2x(a-x).$$

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UDC: 541.124-13+541.124.7

ACC NR: AF6032280

An increase in the wall surface area of the reaction vessel by insertion of capillaries into the reaction chamber increased the initial pressure rise at a rate increasing with time (see Fig. 1). The maximum pressure rise rate for all three isomers occurred at 30-50% decomposition, at which point the degree of autoacceleration (defined as the ratio maximum rate/initial rate) was 5-6. The total amount of gas formed on decomposition was 3.2 mol for the ortho isomer and about 3 mol for the meta and para isomers per mol dinitrobenzene. An increase in the dinitrobenzene vapor concentration within the range 50-800 mm Hg increased the initial and the maximum rate substantially and caused the $p(t)$ curve to assume a saturation character (see Fig. 1). However, the role of the wall reaction in the absence of capillaries apparently was not so great as to markedly change the homogeneous decomposition kinetics. Thus a 10-20-fold increase in the wall surface area caused only a 4-6-fold increase in the initial decomposition rate of the ortho and para isomers. The effect of temperature on the initial decomposition rate of the three isomers was studied under conditions which virtually exclude reaction at the wall. The closeness of the activation energies found for the three isomers suggested that their decomposition mechanism is the same; it apparently consists of the rupture of the C-NO₂ bond. The initial decomposition rate at 350°C of the ortho isomer was 6-7 times as high as that of the meta and para isomers, which decompose at almost the same rate. The corresponding preexponential factor in the Arrhenius equation were 10^{14.6}, and 10^{13.0} and 10^{13.5} sec⁻¹, respectively. The paper was presented by Academician N. N. Semenov, 7 Jan 66. Orig. art. has: 4 figures and 1 table. [WA-68]

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ACC NR: AF6032280

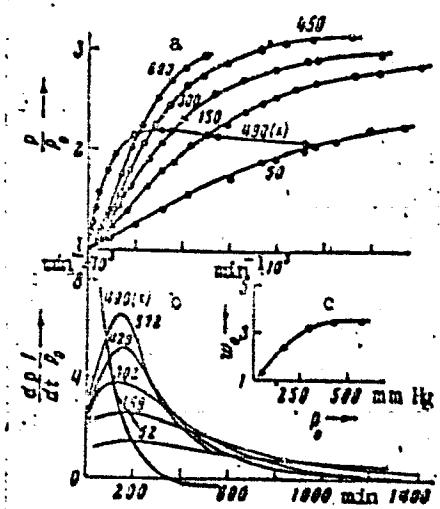


Fig. 1. Effect of concentration on the gas phase decomposition of o-dinitrobenzene at 340°C

a - Gas evolution versus time; b - gas evolution rate versus time; c - initial reaction rate versus initial concentration. Numbers on curves indicate initial pressure in mm Hg. In the experiment indicated with symbol (X) wall surface area was increased 10-20-fold by insertion of capillaries.

SUB CODE: A07, 21/ SUBM DATE: 07Jan66/ ORIG REF: 003/ OTH REF: 003

Card 3/3

DUBOVITSKIY, V. Ya.

94-4-9/25

AUTHOR: Dubovitskiy, V.Ya.

TITLE: A New Method of Automatic Seam Welding from one Side Using a Sliding Copper Backing Piece (Novyy sposob odnosteronney avtomaticheskoy svarki shvov na skol'zyashchey krasnomednoy podkladke)

PERIODICAL: Promyshlennaya Energetika, 1958, Vol.13, No.4,
pp. 19 - 20 (USSR)

ABSTRACT: This suggestion was awarded fourth premium in an All-Union competition for the economy of electric power. The author developed and introduced a new method of making butt-seam welds in metal 2 - 10 mm thick, working from one side and using a copper backing piece. The sheets to be welded are clamped with a gap between them of 2 - 4 mm, as shown in Fig.1. The special welding machine is illustrated diagrammatically, in Fig.2. During the process of welding, the arc burns above the water-cooled copper backing piece, which retains the liquid metal and forms the back of the weld. As the machine moves along, the clamps are removed, so that the joint is made in a single passage through the equipment. Economy of electric power results from the fact that the weld is made in a single pass and not in two, as is usual. Also, there are no magnetic clamps and so no current is required to

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94-4-9/25

A New Method of Automatic Seam Welding from One Side Using a
Sliding Copper Backing Piece

excite them. The annual economy of electric power resulting
from the use of the equipment is about 10 000 kWh.
There are 2 figures.

AVAILABLE: Library of Congress
Card 2/2

DUBOVITZ, D. 1949

"Industrial Health and Planned Economy."

Nepegesz., Budapest, 1949 30/185-215(205-205)
Abst. Exc. Med. IV, Vol. 11, No. 8, p. 869

DUROVITZ, D. 1949

"The Periodical Health Examination of Industrial Workers and the Importance of the Decree
of the Health Register of Workers."

Nepegeszs., Budapest, 1949 30/5(219-221)
No. abst. in Exc. Med.

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4

DUBOVITZ, Denes, dr.

15 years of the development of therapeutic and preventive services.
Nepogesszegy 41 no. 5:118-131 My '60.

(STATE MEDICINE)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4"

DUBOVITZ, Denes, dr.; KADAR, Tibor, dr.

Specialized medical service for the rural population.
Repogesssegugy 44 no.11:330-335 N '63.

(RURAL HEALTH)
(HOSPITAL OUTPATIENT SERVICE)
(SPECIALISM) (HOSPITALS)

Psychiatry

HUNGARY

DUECVITZ, Denes, Dr; National Neurological and Psychiatric Institute (director: MARIA, Bela, Dr), Department of Organizational Methodology (Orszagos Ideg- és Elmegyogyintezet, Szervezesi-Modszertani Osztaly).

"Evaluation of the Activities of Psychiatric Service Institutes in 1965."

Budapest, Idegyogyaszati Szemle, Vol XIX, No 9, Sep 66, pages 268-273.

Abstract: The number of such institutes was 20 in Budapest and 17 in the provinces; in comparison, 195 tb sanatoria, 125 dermatological-venereological and 45 oncological services were in operation. Tables are presented which indicate a range from good supply to complete lack of psychiatric services in different Megye-s. About one-fourth of the admissions to mental institutes were referred to them by the psychiatric services. A table indicates the distribution of the number of different psychiatric disorders treated at the services. An increase in the number of patients cared for by the services, in the amount of care given to the individual cases, and in the number of referrals by the services to mental institutions is recommended. No references.

1/1

DUBOVITZ, Istvan

Report on the 1959 work of the Book and Map Division, Hungarian
Geographical Society. Foldr koal 8 no.3:336-338 '60.

1. Magyar Foldrajzi Tarsaság könyvtarosa.

DUBOVYI, A.B., red.; POPOV, A.S., red.

[Problems of trade-union work; consultations, comments, and answers to questions] Voprosy profsoiuznoi raboty; konsul'tatsii, kommentarii, otvety na voprosy. 3., perer. izd. Moskva, Profizdat, 1965. 527 p. (MIRA 18:7)

DUBOVKIN, Nikolay Filippovich; PAPOK, K.K., doktor tekhn. nauk, prof.,
red.; BORUNOV, N.I., tekhn. red.

[Manual on hydrocarbon fuels and their combustion products]
Spravochnik po uglevodorodnym toplivam i ikh produktam sgoren-
nia. Moskva, Gorenenergoisdat, 1962. 288 p. (MIRA 15:7)
(Fuel—Testing) (Hydrocarbons)

PHASE I BOOK EXPLOITATION

SOV/6117

Dubovkin, Nikolay Filippovich

Spravochnik po uglevodorodnym toplivam i ikh produktam sgoraniya (Manual on Hydrocarbon Fuels and Their Combustion Products) Moscow, Gosenergoizdat, 1962, 288 p. 11,000 copies printed.

Ed.: K. K. Papok; Tech. Ed.: N. I. Borunov.

PURPOSE: This book is intended as a reference manual for heat-transfer physicists and engineers, engineers concerned with liquid and gaseous fuels and with the calculation, design, testing, operation, and repair of stationary and portable heating units and gas turbines. It may also be useful to students at schools of higher and intermediate technical education.

COVERAGE: The book gives a systematic presentation of data on the physico-chemical properties of individual hydrocarbons and some complex hydrocarbon fuels, as well as data on their combustion and combustion products.

Card 1/5

Manual on Hydrocarbon Fuels (Cont.)**SOV/6117**

Experimental data and the appropriate formulas for calculating flame propagation velocity norms, flame propagation concentration limits, ignition limits, ignition delay, and auto-ignition temperatures of hydrocarbon fuels are given and/or tabulated. Considerable attention is directed to the analysis of the fundamental laws governing variations of the physicochemical characteristics of hydrocarbons in dependence upon molecular structure, temperature, pressure, and other parameters. The author thanks Professors D. N. Vyrubov, Doctor of Technical Sciences; K. K. Papok, Doctor of Technical Sciences; and G. F. Knorre, Doctor of Technical Sciences; B. P. Lebedev, Laboratory Head; and V. A. Borodin, Chief Engineer. References, mainly Soviet (Chs. I and II) and English (Ch. III), follow the individual chapters.

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DUBOVNIK, N.F.

Volunteer inspectors. Put' i put.khoz. 8 no.3:6-7 '64. (MIRA 17:3)

1. Pomoshchnik revisora po bezopasnosti dvizheniya, stantsiya Po-pashnaya, Donetskoy dorogi.

DUBOVNIK, T.T., insh.; NERMAN, B.A.

Experience in the simultaneous moving of five spans. Transp.
stroi. 9 no.3:59 Kr '59. (MIRA 12:4)
(Bridge construction)

DUBOVNIK, V.M.; CHESHKOV, A.A.

[From factors and multipoles in electromagnetic interactions] Formfaktory i multipoli v elektromagnitnykh vzaimodeystviiakh. Dubna, Ob"edinennyi in-t iadernykh issl., 1965. 9 p. (MIRA 19:1)

1. Moskovskiy Aviatsionnyy institut imeni Sergo Ordzhonikidze.

DUBOVNYY, S.Z., kand.veterin.nauk; KUCHERUK, M.Kh.

Iodinol for the treatment and prophylaxis of gastrointestinal diseases in calves and piglets. Veterinariia 40 no.7:47-49 J1 '63. (MIRA 16:8)

1. Checheno-Ingushskaya nauchno-issledovatel'skaya veterinarnaya stantsiya (for Dubovnyy). 2. Glavnyy veterinarnyye vrach sovkhoza "Shalinskiy", Checheno-Ingushskoy ASSR (for Kucheruk).

(Iodine organic compounds—Therapeutic use)

(Calves—Diseases and pests)

(Swine—Diseases and pests)

DUBOVOV, Yu. I.; BARYKIN, Ye. B.; CHESNOKOV, G.P.

Introducing new devices manufactured by the Kazan Recording
Instrument Plant. Biul. tekhn.-ekon. inform. Gos. nauch.-issl.
inst. nauch. i tekhn. inform. 18 no. 10:30-31 O '65.
(MIRA 18:12)

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CIA-RDP86-00513R000411410006-4

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~~PUNAKHIN, V.; SIRANOVICHKO, B.; DUBOVY, A., redaktor.~~

[General meeting of workers and employees] Obschchie sobranie rabochikh  
i slushashchikh. [Moskva] Profizdat, 1953. 55 p.  
(HLRA 7:6)  
(Labor and laboring classes)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4"

DUBOVY, A., redaktor; MALIN, Z., tekhnicheskiy redaktor

[Organising mass activity of trade-unions] Organizatsionno-massovaya  
rabota professional'nykh soiuzov. [Moskva] Izd-vo VTsSPS Profisdat,  
1953. 142 p. (MLRA 7:10)

1. Moscow. Vysshaya shkola profdvisheniya.  
(Trade unions)

DUBOVY, A., inzh.; SUSLIN, V., inzh.; KHOKHLOV, G., inzh.

"Electric drives on ships" by G.M.Nikitin. Reviewed by A.  
Dubcovoi, V.Suslin, G.Khokhlov. Rech. transp. 21 no.9:  
55-56 3 '62. (MIRA 15:9)  
(Electricity on ships) (Nikitin, G. M.)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4

GOLOVNIKOV, V., kand.tekhn.nauk; PEGOVY, A., insh.

On board the Chizkent they keep their work. Rech.transp. 23 no.11:8-9  
N '64.  
(MIRA 18:3)

APPROVED FOR RELEASE: 08/25/2000

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"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4

DUBOVAY, A., inst.

Technical maintenance of the diesel-electric ship "Belorussia."  
Rech. transp. 24 no. 4:31-32 '65.  
(MIRA 18:5)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4"

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4

DUBOVY, Anatoliy Aleksandrovich; POPOV, Aleksandr Vasil'yevich;  
NIKITIN, G.M., doktor tekhn. nauk, red.; KAN, P.M., red.

[Electric propelling machinery; servicing and maintenance]  
Elektrogrebnye ustroevki; obsluzhivanie i ukhod. Pod red.  
G.M.Nikitina. Moskva, Transport, 1965. 63 p.  
(MIRA 18:12)

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CIA-RDP86-00513R000411410006-4"

DUBOVYI, A.E.; POMERNO, I.P., red.; BABIKOV, V.P., tekhn.red.

[Participation of Soviet trade unions in economic development] Uchastie sovetskikh profsojuzov v khoziaistvennom stroitel'stve. Moskva, Profizdat, 1962.  
143 p. (MIRA 16:4)  
(Trade unions) (Industrial management)

E.GOVESHCHENSKAYA, N.S.; DUBOVY, A.B.; NIKITIN, D.P.; PETROV,  
P.S., kand.ekon. nauk; YAKAROVA, E.A., red.

[Trade-union mass work to encourage production] Proizvod-  
stvenno-nassovaia rabota professional'nykh soiuzov;  
uchebnoe posobie. Moskva, Profizdat, 1965. 222 p.  
(MIRA 18:7)

1. Moscow. Vysshaya shkola professional'nogo dvizheniya.
2. Zaveduyushchiy kafedroy profsoyuznogo stroitel'stva  
Moskovskoy vysshey shkoly professional'nogo dvizheniya  
(for Petrov).

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4

DUBOVYI, A.K., inzh.; DASKOVSKIY, V.B., inzh.

Putting heavy earthmoving equipment on rails. Gor. zhur. no.5:  
38-42 My '63. (MIRA 16:5)

1. Trest Metallurgmontazh.

(Earthmoving machinery)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4"

DUBOVYI, B.S., kandidat tekhnicheskikh nauk (Dnepropetrovskiy inzhenerno-stroitel'nyy institut)

Vibration transport of concrete mixes and mortars. Rats. i izobr.  
predl. v stroi. no. 9519-13 '54. (MLRA 8:7)

1. Otdel izobretatel'stva i ratsionalizatsii Ministerstva stroitel'stva.  
(Concrete--Transportation)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4

DUBOVAY, D.N.  
DUBOVAY, D.N.

Effect of strongyloidiasis on the growth and development of baby pigs.  
Trudy VIGIS 5:105-108 '53. (NIRA 11:1)  
(Nematoda) (Parasites- Pigs)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4"

DUBOVAY, D. N.

"An Experiment on the Active Immunization of Suckling Pigs Against  
Ascariasis." Cand Vet Sci, All-Union Inst of Helminthology, Ryazan', 1954.  
(ZZhKhim, No 22, Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher  
Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

101247902

8/25/2000 10:45:1053

Ikon, S. S.; Dubovoy, S. I.

Unified model in quantum electrodynamics

V. A. Skopinskaya i teoriiyeas  
1981, 1151

Quantum electrodynamics. first volume

The unified Lee model is constructed by means of symmetrization of the model causality. The interacting sectors in the model. A number of properties of the renormalization constant. The position of the ghost particle. The cut-off parameter is introduced

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total cross sections obtained by summing the terms of the perturbation theory series. This is also the region where the theory seems to be the region of validity. The authors express their hope that the present paper will be of interest to the reader and hope that it will be considered." The paper contains 12 figures and 46 formulas.

HOLE

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NR REF Sov: 201 Date: 008

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4

CHERKASOV, K. D., ENIDLIK, P. N., FAYEDRO, Ya. B., MIRKASHEVICH, A. M., ZAVODRODNOV,  
O. G., SAFRONOV, B. G., DUBOVY, L. V. and LUTSENKO, E. I.

"Experimental Research of High Frequency Properties of Plasma and  
Magnetohydrodynamic Shock Waves."

paper to be presented at 2nd UN Intl. Conf. on the peaceful uses of Atomic  
Energy, Geneva, 1 - 13 Sep 58.

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4"

DUBOVYX, L.V.; SHVETS, O.M.; OVCHINNIKOV, S.S.

Measurement and stabilization of magnetic fields by means of  
the electron cyclotron resonance. Prib. i tekhn. eksp. no.3:106-  
109 My-Je '60. (MIRA 14:10)

1. Fiziko-tekhnicheskiy institut AN USSR.  
(Magnetic fields—Measurement)

DUBOVY, L. V.

1977-1978  
Annual Conference on the History & State of Latin America, 2d., Monterrey, 1978  
Latin American Studies Association, Monterrey, 1978, 75 p. (Series: Latin American Studies, Vol. 1).

Mr. G. E. Muller, Prof. A. E. Alluisse, Associate Prof. V. J. Shuster, Mathematics and  
Ed. Faculty; Department of Physical and Mathematical Sciences, Dr. of Ed.  
Prof. S. L. Bloomer and Dr. R. Thompson, Chemistry; Department of Physical and Mathematical  
Sciences, Dr. Charles Murphy, Civil Engineering; Prof. Dr. D. C. Moulton.

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| 10 | Report of State Auditing Board (1940.)                                 | 107/108 |
| 11 | Joint Legislative Committee on State<br>and Local Government (1940-41) | 109     |
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CIA-RDP86-00513R000411410006-4"

8/089/60/006/04/02/009  
B113/B017

AUTHORS: Dubovoy, L. V., Shvets, O. M., Ovchinnikov, S. S.

TITLE: Ionic Cyclotron Resonance in Dense Plasmas

PERIODICAL: Atomnaya energiya, 1960, Vol. 8, No. 4, pp. 316-323

TEXT: The possibility of heating plasma was investigated by using ionic cyclotron resonance. In this connection it was found that experiments yield satisfactory agreement with the theory of the dependence of the reduction of the influence exercised by the polarized field on penetrating variable fields for heated plasma with charged-particle densities of  $10^{13}$  to  $10^{14} \text{ cm}^{-3}$ . In plasma with a low ionization degree a strong reduction of the energy transfer efficiency of the high-frequency field to the ions is observed with an increase in their velocity, which is related with the cooling of these ions by neutral ions. The authors thank K. D. Sinel'nikov for discussions. There are 10 figures and 13 references: 6 Soviet, 4 American, 1 British, 1 French, and 1 German.

SUBMITTED: May 4, 1959

VA

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82840  
S/048/60/024/008/017/017  
B012/B067

24.2/20

AUTHORS: Dubovoy, L. V., Shvets, O. M.

TITLE: Method of Measuring the Total Cross Sections of Particle  
Collisions in Dense Plasmas ✓

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960,  
Vol. 24, No. 8, pp. 1013-1017

TEXT: In this paper a method is given for measuring the total cross sections of the interaction between electrons or ions in a plasma by using the properties of the plasma in the magnetic field. The method is based on the dependence of plasma conductivity in the region of cyclotron resonance on the cross section of particle collision in discharge. The magnetic field allows a division of the total conductivity of the plasma into components. These components are connected with those particles in which the resonance condition is fulfilled. The mechanism of the phenomena is analogous to the processes in the cyclotron. The quantitative part of this problem was studied in Refs. 2,3,4. For

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82840

Method of Measuring the Total Cross Sections  
of Particle Collisions in Dense Plasmas

S/048/60/024/008/017/017  
B012/B067

examining the theory of the method given here for the case of cyclotron resonance in the electrons, the main conditions for formula (1) were fulfilled in constructing the apparatus. The degree of the Maxwell distribution, the density, and the temperature of the electrons were determined by the method of the double probe (Ref. 6). The dependence of the half-width of the resonance curves on pressure (Fig. 1) which was obtained is almost linear. This shows that the main interaction takes place between electrons and the neutral particles. After having developed the method for electrons the total cross sections in the collision of thermal protons with neutral particles was measured. These measurements are described here. In conclusion, the following is stated: The experimental results in studying the properties of the plasma of high concentration in ionized particles cannot be expressed by the theory which considers only the pairwise collisions. The strong internal plasma fields are connected with the macroscopic charges and currents in dense plasmas and lead to an occurrence of new interactions among the particles. In this connection the new interactions often play a leading part. Such processes may be studied only in plasmas with sufficiently

Card 2/3

Method of Measuring the Total Cross Sections  
of Particle Collisions in Dense Plasmas

82840  
S/048/60/024/008/017/017  
B012/B067

X

high concentration. The method shown here will probably allow the measurement of interaction cross sections of particles in plasmas of a density of  $10^6 \div 10^{14} \text{ cm}^{-3}$ . In measuring the electron collision cross sections in the gas discharge in the magnetic field the method given here furnishes correct results. There are 2 figures and 13 references: 2 Soviet, 10 British, and 1 German.

Card 3/3

20667

S/057/61/031/001/012/017  
B104/B204*26.2321*

AUTHORS: Glazov, O. A., Dubovoy, L. V., and Rutkevich, B. N.

TITLE: Excitation of ionic cyclotron oscillations in a plasma by electron beams

PERIODICAL: Zhurnal-tehnicheskoy-fiziki, v. 31, no. 1, 1961, 84-86

TEXT: In the high-frequency heating of a plasma by means of ionic cyclotron resonance, the efficacy of the conventional method is considerably reduced when using larger volumes and stronger magnetic fields. The excitation of ionic cyclotron oscillations by modulated electron beams offers certain advantages. The authors suggest using electron beams modulated in such a manner that the beams of electrons passing through the plasma form spirals moving along the magnetic field with the velocity  $v_{\parallel}$ . It is assumed that the magnetic field  $H_0$  is applied along the z-axis. The fundamental frequency of the azimuthal current of this beam may then be expressed by

$$j_{\phi} = j_0 \delta(r - r_0) e^{i(k_3 z - \omega t)} \quad (1),$$

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Excitation of ionic cyclotron ...

S/057/61/031/001/012/017  
B104/B204

where  $k_3 = \omega/v_n$ ,  $\omega$  - the modulation frequency of the beam,  $r, \varphi, z$  - the cylindrical coordinates, and  $r_0$  - the Larmor radius of an electron. The problem is studied in hydrodynamic approximation; the gravitational force is supposed to be negligibly low, pressure is equal to zero, and the plasma consists of electrons having the mass  $m_e$  and charge  $-e$ , as well as of one kind of positive ions having the mass  $m_i$  and the charge  $Ze$ . Further, the plasma is assumed to be electrically neutral in undisturbed condition, and the density of the plasma is assumed to be sufficiently great. The equations describing the interaction between waves in the frequency range  $\omega \gtrsim \omega_i$  ( $\omega_i$  - ionic cyclotron frequency) in the plasma and the electron beam assume the form

$$\left. \begin{aligned} \text{rot } \mathbf{E} &= -\frac{1}{c} \frac{d\mathbf{H}}{dt}; \text{div } \mathbf{H} = 0, \\ \text{rot } \mathbf{H} &= \frac{4\pi}{c} (\mathbf{j} + \mathbf{j}^{(n, i)}); \overline{\text{div } \mathbf{j}} = 0; \end{aligned} \right\} \quad (2)$$

Card 2/4

Motion of ionic cyclotron ...

$$\rho_0 \frac{dv}{dt} = \frac{1}{c} [J, H_0]; \quad (3)$$

$$E + \left[ \frac{v}{c}, H_0 \right] = \frac{1}{enec} [J, H_0]. \quad (4)$$

$$\left. \begin{aligned} E_r^I &= C_1 J_1(k_1 r) e^{i(t_r - \omega t)}, \\ H_r^I &= C_1 \frac{ck_1}{i\omega} J_0(k_1 r) e^{i(t_r - \omega t)}; \end{aligned} \right\} \quad (5)$$

As solutions of these differential equations one obtains

$$\left. \begin{aligned} E_r^I &= C_1 H_1^D(k_1 r) e^{i(t_r - \omega t)}, \\ H_r^I &= C_1 \frac{ck_1}{i\omega} H_0^D(k_1 r) e^{i(t_r - \omega t)}; \end{aligned} \right\} \quad (6)$$

for  $r < r_0$ , and

$$k_1^I = \left( \frac{\omega_I^2}{c^2} \right) \frac{\left( \frac{\Omega_I^2}{\omega_I^2} \right)^2 \left( \frac{\omega_I^2}{\omega_i^2} \right)^2 - \left[ 2 \frac{k_3^2 c^2}{\omega_I^2} \frac{\Omega_I^2}{\omega_i^2} + \left( \frac{k_3^2 c^2}{\omega_I^2} \right)^2 \right] \left( \frac{\omega_I^2}{\omega_i^2} \right) + \left( \frac{k_3^2 c^2}{\omega_I^2} \right)^2}{\left( \frac{\Omega_I^2}{\omega_I^2} + \frac{k_3^2 c^2}{\omega_i^2} \right) \left( \frac{\omega_I^2}{\omega_i^2} \right) - \frac{k_3^2 c^2}{\omega_i^2}}; \quad (7)$$

where

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20667

## Excitation of ionic cyclotron ...

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B104/B204

Here,  $J_n(k_1 r)$  are Bessel functions;  $H_n^{(1)}(k_1 r)$  are Hankel functions of first kind;  $\Omega_i^2 = 4\pi n_1 Z^2 e^2 / m_1$  is the plasma ion frequency. The mean energy value in time per unit length of the electron beam is given by

$$\pi = \frac{2\pi \omega}{c^2} r_0^2 J_0^2(k_1 r_0) J_0^2 \quad (9).$$

From this formula it follows that at a sufficiently high current density  $J_0$ , the intensity of interaction between the electron beam and the plasma is very high. The authors thank K. D. Sinel'nikov for advice and a discussion. There are 6 references: 4 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Fiziko-tehnicheskiy institut AN USSR, Khar'kov  
(Institute of Physics and Technology AS UkrSSR, Khar'kov)

SUBMITTED: July 15, 1960

Card 4/4

9.3150 (1049, 1163, 1502)

30091  
S/057/61/031/011/006/019  
B104/B108

76.Y3Y1

AUTHORS: Dubovoy, L. V., and Ponomarenko, A. G.

TITLE: Plasma parameter measurements in a magnetic field

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 11, 1961, 1302 - 1308

TEXT: The determination of plasma parameters by measurement of electromagnetic wave absorption in the frequency range of electron cyclotron resonance is investigated. The attenuation of waves in plasma is given by  $\beta = 10(\log e) \frac{2\omega}{c} \left\{ \frac{v_s}{(1-u)^2 + 4s^2} \right\}$ . An analysis of this formula shows that  $v$  and  $n_e$  can be determined from the shape of the absorption lines in the resonance range. Theoretical results were checked by determining  $\gamma(T_e) = \text{const}$  and  $\gamma \propto T_e^{3/2}$  from measurements of the absorption of a microwave signal in an electrodeless discharge through hydrogen and argon.  $\gamma$  is the frequency of collisions of electrons with other plasma components, and  $T_e$  is the electron temperature. Measurements were made

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30091

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Plasma parameter measurements in a ...

at 0.2 - 1.6 mm Hg, where electron scattering from neutral particles has a strong influence on  $\psi$ . A block diagram of the experimental device is shown in Fig. 2. The cylindrical discharge tube is located between the poles of an electromagnet with an iron core. The magnet generates fields of from 2000 to 6000 oersted. The inhomogeneity of the field is < 1%. A klystron generator is used as a measuring instrument. The discharge tube is located between pencil-beam dielectric antennas. One of them is connected to the generator, the other to a detector with a logarithmic amplifier. Plasma was produced by an electrodeless discharge with a frequency of 60 megacycles. The absolute value of attenuation was determined by comparative measurements with a calibrated attenuator connected to the antenna circuit. The results show that data on  $\psi$  and  $n_e$  can be obtained by high-frequency wave attenuation measurements.  $T_e$  of plasma can be determined by this method if  $\psi$  depends largely on the electron energy. There are 4 figures, 2 tables, and 11 references: 3 Soviet and 8 non-Soviet. The four most recent references to English-language publications read as follows: B. Kelley, H. Morgenau a. S. Brown. Phys. Rev., 108, 1367, 1957; J. B. Bowe. Phys. Rev., 117, 1416, 1960; W. P. Allis,

Card 2/3

X

Plasma parameter measurements in a ...

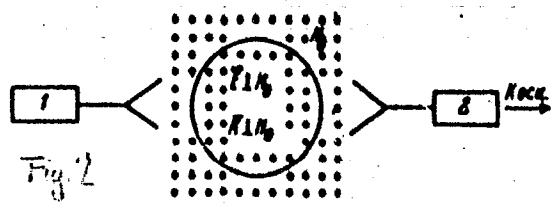
30091  
S/057/61/031/011/006/019  
B104/B108

S. Brown a. E. Everhart. Phys. Rev., 84, 519, 1951; B. Hill, S. J. Jetenbaum.  
J. Appl. Phys., 30, 1610, 1959.

SUBMITTED: November 9, 1960

Fig. 2. Block diagram of the experimental device. Legend: (1) 3-cm FCC  
(GSS) generator; (2) logarithmic detector.

Fig. 2



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X

DUBOVY, L. V.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences  
at the Joint Scientific Council on Physicomathematical and Technical Sciences;  
Siberian Branch 1962

"Problem of Resonance Properties of Plasma in a Magnetic Field."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

The effect of the length of the plasma section on the absorption mechanism was investigated. The plasma source was an electric discharge with oscillating electrons. The charge density varied from  $10^1$  to  $10^{12} \text{ cm}^{-3}$ , and the absorption of the high frequency generator waves measured by detector.

It is shown that the use of short heating sections (compared with the length of the plasma placed) in plasma with charged-particle density  $10^1$  to  $10^4 \text{ cm}^{-3}$  makes it possible to obtain

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APPROVED FOR RELEASE: 08/25/2000

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ACCESSION NR: AP4042000

S/0057/64/034/007/1242/1251

AUTHOR: Davidovskiy, V.G.; Dubovoy, L.V.; Ponomarenko, A.G.

TITLE: The resonance probe in a plasma in a magnetic field

SOURCE: Zhurnal tehnicheskoy fiziki, v.34, no.7, 1964, 1242-1251

TOPIC TAGS: plasma, plasma diagnostics, resonance probe, magnetic field plasma effect

ABSTRACT: This paper is concerned with the applicability of the resonance probe (L.Tonks, Phys.Rev.37,1458,1931; T.H.Jeung and I.Sayers, Proc.Phys.Soc.70B,663,1957) as a diagnostic tool in the investigation of a plasma in a magnetic field. The method consists in observing the oscillations excited in the plasma by a small probe field of frequency near the Langmuir frequency. In the absence of a magnetic field one can derive the electron concentration from the resonant frequency, and the collision frequency from the width of the resonance. The authors derive the dispersion equation for a plasma in a magnetic field and show that in addition to the resonance at the Langmuir frequency ( $V = 1$ ), there are resonances at  $V = 1 \pm \sqrt{U}$  and, under some conditions, at  $V = 1-U$ . Here  $V = f_0^2/f^2$ ,  $U = f_H^2/f^2$ , and  $f_0$ ,  $f_H$  and  $f$  are the

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ACCESSION NR: AP4042000

Langmuir, Larmor, and probe frequencies, respectively. The behavior of resonance probes was investigated experimentally in helium and air plasmas at pressures from 0.03 to 0.1 mm Hg and magnetic fields up to 4 kOe. The plasmas were excited in a cubical glass container by a 50 megacycle/sec electric field, the available power of which was 300 W. The probes were similar to those employed by Jang and Sayers (loc.cit.) and were made from lengths of high frequency coaxial line. The exciting and detecting probes were located near the center of the container, and were separated by 0.5 to 1.5 cm. The probe frequency was varied from 200 to 1000 megacycles/sec. Resonance probe measurements in the absence of a magnetic field were compared with measurements performed by the method of G.Schulz and S.Brown (Phys.Rev.93,1642, 1955), and satisfactory agreement was found. In the presence of the magnetic field, the probe frequency was held constant and the amplitude of the probe oscillations was observed with an oscilloscope as a function of the electron concentration. (The electron concentration was obtained from the power absorbed by the plasma from the exciting field.) The predicted resonances were observed at the predicted places. As the magnetic field increased, the Langmuir resonance ( $V = 1$ ) broadened, was replaced by a plateau having several small peaks, and finally disappeared entirely. Although there are noise problems, and the method cannot be used when the collision frequency is as great as the probe frequency, it is concluded that the resonance

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ACCESSION NR: AP4042000

probe method holds promise and should be further explored. "The authors are pleased to express their gratitude to R.Z.Sagdeev and B.V.Chirikov for discussing the work, and to N.S.Buchel'nikova for her constant support and interest." Orig.art.has: 22 formulas and 6 figures.

ASSOCIATION: none

SUBMITTED: 18Jan63

ENCL: 00

SUB CODE: MS

NR REF Sov: 004

OTHER: 004

3/3

IN SR: AP4046349

one should not exceed the lifetime of the plasma; otherwise losses will increase sharply. If the acceleration time should exceed the time of diffusion of the current in the field of the sheet. Considering the acceleration theory, the governing the acceleration process is analyzed. The equation of

$$q = \frac{L_1^2 C_0 V_0^2}{2 m V_0}$$

i.e., and  $V_0$  are initial parameters of the system,  $m$  is the mass of the plasmoid, and  $L_1$  is an inductance coefficient due to a longitudinal component of the plasma bunch. Computer calculations systems results are presented for various critical values of  $q$ . The results are applied to determine the optimum natural frequency of the supply. "The author thanks L. P. Kovachevich for help with the solution of equations." Orig. art. has 4 figures and tables.

ACTION: none

FILED: 10 Nov 63 APPROXSS: 1116  
SCL: 00  
VP, PB 20 1000411410006-4  
NORTHWEST COY: 007 OTHER: 003

*OK*

ACCESSION NR: AP4019970

S/0020/64/154/006/1310/1313

AUTHOR: Dubovoy, L. V.; Nesterikhin, Yu. Ye.

TITLE: Generation of superfast plasma condensations in accelerators  
of the rail gun type

SOURCE: AN SSSR. Doklady\*, v. 154, no. 6, 1964, 1310-1313

TOPIC TAGS: superfast plasma condensation, plasma gun, plasma accelerator, plasma, plasma generation, particle ionization, particle acceleration

ABSTRACT: It has been recognized that it is desirable to separate the processes of ionization and acceleration of particles in the plasma. The present work describes experiments in which highly ionized plasma produced outside the accelerator is injected into the latter. The design of the plasma source is similar to that used by Yu. S. Azovskiy (Zh. TF, 32, 1050 (1961)). The plasma was composed of highly ionized particles evaporated from an insulator insert of the source made of organic glass. The average energy of electrons and ions was 15 to 15 ev measured with a retarding potential. The velocity of the front of

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ACCESSION NR: AP4019970

the injected plasma was  $5 \times 10^3$  m/sec. Since in accelerators of this type there is no way of preventing radial diffusion, the time of acceleration must be of the order of  $10^{-6}$  sec. This imposes requirements on the period of oscillations of the capacitor battery feeding the accelerator which are difficult to satisfy. "The authors are grateful to G. I. Budker for his interest and useful discussions, to V. N. Lukyanov for help with measurements, and to Yu. A. Berezin for computations." Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 17Sep63

DATE ACQ: 23Mar64

ENCL: 01

SUB CODE: PH

NO REF Sov: 004

OTHER: 003

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S-62 AP5008735

The specimen was homogeneous. Stabilizing effect of time to superhigh-frequency ionization and effects due to the presence of field gradients eliminated. The comparison of oscillograms of current and modulated electric fields confirmed the effectiveness of stabilizing. The effect of generation and stabilization of oscillations was observed over a region of angles  $\Phi$  between the crystal axis and the direction of the magnetic field H. In the instability generation region, if the voltage does not exceed 100 V, investigation of the modulated electric field shows that current instabilities of  $\Phi$  different from zero showed a narrow region of  $\Phi$  ( $\sim 10^\circ$ ) in which the frequency field E increased instead of suppressed the instability. No instability by an alternating electric field was observed in many different geometry at  $\Phi$  close to zero. The threshold voltage also depends on the ratio of E. The suppression of instabilities has a different character. At a decrease of threshold value  $E_0$  ( $E_0$  is the minimum electric field at which oscillations begin), the effectiveness of the alternating electric field increases. With an increase of crystal length, the range of effectiveness of the alternating field decreases. The results confirm the possibility of applying time-varying electromagnetic fields for the stabilization of oscillations. (art. han) [1A]

stability, Penning discharge, etc., two streams occur in temperature

authors investigated the effect of a radial magnetic field, by a stabilizing system of six rods, which rotate in opposite directions, on the development of a deuterium Penning discharge. The magnetic field of the rod system was described by M. S. Pashkov et al. (J. Atoms. Comp., 1, 366, 1964). The discharge appears in the arrangement shown in Fig. 1. The plasma parameters were determined from the value Langmuir probe transmission of a microwave signal from the cathode. The plasma was almost completely ionized, and the density in the discharge region ( $1-6 \times 10^{13} \text{ cm}^{-3}$ ) and a temperature of about between 50 eV. The measured spectrum of the oscillations has a single harmonic.

APR019212

oscillations at  $10^4 - 10^5$  cps and random

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CIA-RDP86-00513R000411410006-4

REF ID: A75019212

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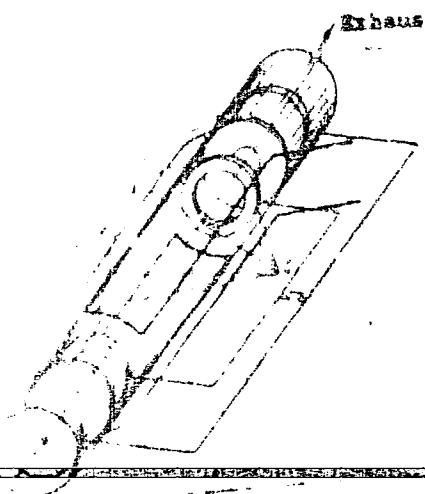


Fig. 1 - Engine set-up

K = Nitro  
A = nozzle  
C = fins + role / stabilizing role

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"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4

ACC NO 476047077

UR/00513/66/034/001/0294/0294

DIGE frequency electric field was provided by a passing conductor and could be made  
to oscillate at a certain frequency by applying a voltage to a large column.

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ACQ NR AP6007077

... dynamics of the beam current in the discharge channel. The  
current and the voltage drop across the discharge gap were measured by the  
means of the glass septa limiting the diameter of the discharge column. The high  
voltage was supplied by a high voltage power supply.

The current stabilization was the smaller, the higher the discharge current.

I. 09350-67 EMT(1)/EMT(2)/EMT(t)/STI IJP(c) AT/JD

ACC NR. AP6031434

SOURCE CODE: UR/0056/66/051/002/0412/0416

63

AUTHOR: Dubovoy, L. V.; Shanskiy, V. F.

ORG: none

TITLE: Mechanism of stabilization of a plasma by high frequency electromagnetic fields

SOURCE: Zh eksp i teor fiz, v. 51, no. 2, 1966, 412-416

TOPIC TAGS: plasma instability, semiconductor plasma, germanium semiconductor, microwave plasma, semiconductor carrier, carrier density

ABSTRACT: This is a continuation of earlier work (ZhETF v. 48, 888, 1965) and is devoted to an experimental verification of the theoretical assumption that there are no oscillations at the end of a plasma column in a semiconductor, and to check on the presence of spatial long-wave instability harmonics, which is implied by this assumption. All the experiments were made in an electron-hole plasma of germanium, using a microwave procedure with a magnetic field that could be varied from zero to 12 kOe. The procedure for exciting the instabilities and for determining their position was identical with that described in the earlier paper. The microwave technique used to determine the spatial structure of the instability was originally described by I. Misawa and I. Jamada (J. Appl. Phys., Japan, v. 2, 1, 1963). The pulse producing the

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ACC NR: AP6031434

instability was of  $10^{-3}$  sec duration, and the frequency of the stabilizing generator was 3 Mcs. The electric fields in the experiments ranged from 50 to 100 v/cm. The experiments consisted of recording the amplitude of the reflected or the transmitted microwave signals, which was proportional to the amplitude of variation of the mean value of the carrier density at the intersection of a waveguide and the semiconductor sample. The maximum deviation of the carrier density from their equilibrium value was a measure of the amplitude of the instability in the given section of the sample. The microwave study of the mode spectrum with different spatial periods along the sample axis has shown that with increase in quasistationary electric field the relative content of the short-wave modes increases. This explains why an alternating electric field becomes more efficient in suppressing the instabilities when the quasistationary electric field is increased. The tests show that the zero boundary conditions indeed apply at the ends of the sample, in agreement with the theory, confirm directly the presence of the spatial long-wave instability harmonics predicted by the calculations, and show that the efficiency of stabilization depends strongly on the spectrum of the spatial harmonic in the current plasma during the nonequilibrium state. Orig. art. has: 5 figures and 3 formulas.

SUB CODE: 20/ SUBM DATE: 19Mar66/ ORIG REF: 003/ OTH REF: 002

L 23529-66 ENT(1) ETC(1) LIP(9) AT

ACC NR: AP6011653

SOURCE CODE: UR/0020/66/167/003/0553/0555

AUTHORS: Dubovoy, L. V.; Pedyakov, V. P.

48

ORG: none

B

TITLE: On the confinement of a high temperature plasma in a trap with magnetic mirrors

SOURCE: AN SSSR. Doklady, v. 167, no. 3, 1966, 553-555

TOPIC TAGS: high temperature plasma, plasma confinement, magnetic trapping, magnetic mirror, turbulent plasma, plasma heating

ABSTRACT: The authors measured the confinement time of a plasma with hot electrons in a mirror-type trap (probkotron). The trap was filled with high temperature particles by the method of turbulently heating the plasma with a direct discharge, described by M. A. Babkin et al. (ZhETF v. 47, 1957, 1964). The experiments were made in a quartz tube 1.2 meters long and 12 cm in diameter, in deuterium, at a gas pressure  $1 - 2 \times 10^{-5}$  mm Hg. The longitudinal magnetic field in the homogeneous part of the trap ranged from 2 to 10 kOe at a constant mirror ratio 1.5. The field half cycle was 6 msec long. The direct discharge current was

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UDC: 533.9.16 + 533.9.951.8

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ACC NR: AP6011653

applied at the maximum of the magnetic field. The discharge current could be varied from 1 to 45 ka, with a half-cycle duration of 5  $\mu$ sec. The results show that with increasing electron temperature the time of plasma confinement increased monotonically, reaching values of the order of 1 millisecond at a temperature of  $10^4$  eV. The relative change in the longitudinal magnetic field reached a maximum of 0.04, corresponding to an electron temperature of  $10 - 20$  kev. Satisfactory agreement is obtained between the measured and theoretical values. It is concluded that further research on turbulent heating of plasma in a direct discharge with subsequent capturing of the plasma in magnetic traps of different types can lead to promising results with respect to plasma containment. This report was presented by Academician V. K. Zavoyskiy

30 June 1965. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 17Jun65/ ORIG REF: 001/

Card

2/2 LS

SOURCE CODE: UN/0356/66/004/010/020/099

AUTHOR: Dubovoy, L. V.; Dyatlov, V. D.; Pedyakov, V. P.

36.

ORG: none

TITLE: Ion cyclotron resonance in a dense plasma with hot electrons

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu.  
Prilozheniya, v. 4, no. 10, 1966, 388-393

TOPIC TAGS: plasma heating, plasma temperature, cyclotron resonance, electron temperature, ion energy

ABSTRACT: The authors report results of an experimental investigation of the properties of a dense plasma with preheated electrons in the ion-cyclotron resonance region.

The experiments were made in a magnetic mirror trap. The electrons were heated by a direct turbulent discharge. The apparatus and the method of producing the hot electron plasma were described earlier (Dokl. AN SSSR v. 167, 553, 1966). In the first part of the investigation, the cyclotron absorption of the energy of the probing high-frequency fields was used to measure the parameters of the ionic components of the plasma. These tests disclosed the presence of a narrow region (near 4.75 koe) corresponding to single-particle resonance for hydrogen atoms, and the presence of absorption bands at stronger fields, connected with ion-cyclotron wave generation. The results suggest that the electrons escape the trap, but their temperature remains constant. In the second part of the experiment, an attempt was made to heat the ions

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with a short packet of powerful damped electromagnetic-field oscillations, which generated in the plasma a rapidly dissipating cyclotron wave of large amplitude. Oscillograms of the diamagnetic effect in the plasma showed clearly that ion heating took place in the plasma, the absorbed energy amounting to ~1 kev per ion. However, the decay time of the plasma with approximately equal ion and electron temperatures turned out to be approximately the same as for a plasma with cold ions. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 02Aug66/ ORIG REF: 001/ OTH REF: 002

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4

DUBOVY, N.S., agronom, MASTRUK, P.I., sanitarnyy vrach.

"Public health and medical services for machine-tractor station workers" by R.D. Gabovich. Gig. i san. 23 no.6:90-91 Je'58  
(MIRA 11:7)

(PUBLIC HEALTH)  
(GABOVICH, R.D.)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4"

DUBOVYI, I.I., insh.

Using universal adjustment dies in making excavators. Stroi.  
dor.mashinostr. 2 no.9:26-31 8 '57. (MIRA 10:11)  
(Dies (Metalworking))

L 44184-66 EWT(1)/EWT(2)/T/EMP(t)/ETI IJP(c) JD/QG

ACC NM AP6022996

SOURCE CODE: UR/0185/66/011/004/0383/0388 63  
BAUTHOR: Dubovoy, V. K.; Kucherov, I. Ya.; Shyyanova'kyy, V. I.ORG: Kiev State University im. I. G. Shevchenko (Kyyivs' kyy derzhuniversyty)TITLE: Investigation of certain electrical properties on the surface of cadmium sulfide single crystalsSOURCE: Ukrayins' kyy fizychnyy zhurnal, v. 11, no. 4, 1966, 383-388

TOPIC TAGS: molecular crystal, crystal surface, electric field, electrode, cadmium sulfide, single crystal

ABSTRACT: The effects of the natural atmosphere, dry air, O<sub>2</sub>, H<sub>2</sub>O vapor, CO<sub>2</sub>, and a transverse electric field on the conductivity of CdS single crystals with ohmic In-Ga electrodes have been investigated. In the case of sample I, dry air, O<sub>2</sub>, and CO<sub>2</sub> vapor have practically no effect on the conductivity, while under the effect of the

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natural atmosphere and H<sub>2</sub>O vapor the conductivity is increased. In the case of sample II, the natural atmosphere, dry air, and O<sub>2</sub> vapor greatly decrease the conductivity, while H<sub>2</sub>O vapor has a lesser effect, and CO<sub>2</sub> only slightly decreases the conductivity. The electric field has an effect on the conductivity in crystals of sample I only in a humid atmosphere, while in crystals of sample II, the conductivity was affected in all the gas media and in a vacuum of ~ 10<sup>-5</sup> mm Hg. The electric-field sign corresponded to the electronic nature of the surface conductivity in all cases. The conclusion is drawn that the initial surface bend in samples I and II differs in sign (antisuppression in II), which may be due to the deviation from a stoichiometric composition. It is assumed that H<sub>2</sub>O molecules on the surface of crystals I create a capture center for holes, and on the surface of crystals II — for electrons. Orig. art. has: 4 figures and 1 formula. [Based on authors' abstract]

[NT]

SUB CODE: 20 / SUBM DATE: 24Sep85 / ORIG REF: 014 / OTH REF: 008 /

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Card 2/2

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4

DUBOVOV, V. S.

Flakes In Steel (Flokni v Stali), 332 pp, Government Scientific-Technical Publishing House of Ferrous and Non-Ferrous Metallurgy, Moscow, 1950.

B-68125, 1 Sep 53

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4"

ZARITSKIY, L.A., zasluzhennyj deyatel' nauki, prof.; DUBOVAY, Ye.D., prof.

Telegamma therapy in cancer of the larynx. Zhur. ush., nos. 1 i gvor.  
bol. 23, no. 3 s. 3-9 My-Je '63. (MIRA 16-7)

1. Is kafedry otorinolaringologii i kafedry rentgenologii i radio-  
logii Odesskogo meditsinskogo instituta imeni N.I.Pirogova.  
(GAMMA RAYS—THERAPEUTIC USE)  
(LARYNX—CANCER)

DUBOVSKY, J.; DUBOVSKA, R.

Acidity test, II. A method for the acidity test. Sborn.lek. 62  
no.5:128-134 1960.

(ACID-BASE EQUILIBRIUM)  
(URINE)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411410006-4

DUBOVSKY, J.; DUBOVSKA, E.; KUCHEL, O.; PACOVSKY, VI.

Acidity test. IV. Studies in certain metabolic disorders of the kidneys. Sber. lek. 62 no.5:138-142 1960.

(ACID BASE EQUILIBRIUM)  
(KIDNEY DISEASES urine)  
(ALDOSTERONE)

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CIA-RDP86-00513R000411410006-4"

DUBOVSKY, J.; DUBOVSKA, E.; PACOVSKY, Vl.

Acidity test. V. Metabolism of phosphorus in acidity tests. Sborn.  
lek. 62 no.5:142-146 1960.

(ACID BASE EQUILIBRIUM)

(URINE)

(PHOSPHORUS metab.)

DUBOVSKA, EVA (MUDr)

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(6)

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Source: Prague, Prakticky Lekar, No 41, No 17, 5 September 1961, pp 774-776 and  
789-792

Data: "The Active Search for Primary Hyperparathyreosis in General Practise."  
"Present-Day Possibilities in the Biochemical Diagnosis of Metabolic  
Bone Diseases."

Authors:

PACOVSKY, Vladimir, MUDr  
BLEHA, Otakar, MUDr  
KOŠŤÁKOVÁ, Alena, MUDr  
VOSTAL, Jaroslav, MUDr  
DUBOVSKA, Eva, MUDr

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PACOVSKY, Vladimir; DUBOVSKA, Eva; KOMARKOVA, Alena; VOSTAL, Jaroslav

Influence of the antidiuretic hormone on renal calcium excretion in man. Cas.lak.cesk 100 no.16:502-504 21 Ap '61.

1. III interni klinika fakulty všeobecného lekarství UK v Praze,  
prednosta akademik J. Charvat; Ustřední biochemické laboratoře fakultní  
kliniky v Praze, prednosta MUDr. J. Hrabánek; Ustav hygieny práce a  
chorob z povolání v Praze, reditál prof. dr. J. Teisinger.

(VASOPRESSIN pharmacol) (CALCIUM urine)

PACOVSKY, Vladimir; KOMARKOVA, Alena; DUBOVSKA, Eva

The maximum tubular phosphate resorption in primary hyperparathyreosis.  
Cas.lek.cesk 100 no.18:568-570 5 Ky '61.

1. III. interni klinika fakulty všeobecného lekarství KU v Praze,  
prednosta akademik Josef Charvat, Ustřední biochemické laboratoře  
SFM v Praze 2, prednosta MUDr. Jan Hrabánek.

(PARATHYROID GLAND dis) (PHOSPHATES metab)  
(KIDNEYS physiol)

KUCHEL, Oto; SCHUCK, Ota; PETRASEK, Jan; DUBOVSKA, Eva

A contribution to the mechanism of action of some saluretics in diabetes insipidus. Cas.lek.cesk 100 no.47:1494-1496 24 N '61.

1. III interní klinika KU v Praze, prednosta akademik Josef Charvat.  
I.interní klinika KU v Praze, prednosta prof. dr. Vojtech Hoenig.

(DIABETES INSIPIDUS ther) (ACETAZOLAMIDE ther)  
(CHLOROTHIAZIDE rel cpds)

PACOVSKY, V.; KOMARKOVA, A.; VOSTAL, J.; DUBOVSKY, J.; DUBOVSKA, E.;  
BLEHA, O.

Metabolic aspects of bilateral nephrolithiasis. Acta univ. carol.  
[med.] Suppl. 14:415-426 '61.

1. III. interni klinika fakulty vseobecneho lekarstvi University  
Karlovych v Praze, prednosta akademik Josef Charvat Ustredni biochemicke  
laboratore fakultni nemocnice, prednosta dr. Jan Hrabane  
Ustav hygieny prade a chorob z povolani, reditel prof. dr. Jaroslav  
Teisinger.

(URINARY CALCULI metab)

STURMA, A.; DUBOVSKY, J.; PETRASEK, J.; DUBOVSKA, E.

Studies on the excretion of  $\alpha$ -ketoglutaric, pyruvic and 3-methoxy-  
4-hydroxy mandelic acid in university students under the influence  
of increased work load. Activ. nerv. sup. 4 no.2:192-193 '62.

1. Zdrav. odd. VPA-KG, Praha, III interni klinika fak. vseob. lek.,  
Praha.

(KETO ACIDS urine) (PYRUVATES urine)  
(MANDELIC ACIDS rel. cpds) (STUDENTS)  
(FATIGUE MENTAL)

CZECHOSLOVAKIA

J. DUBOVSKY, E. DUBOVSKA and J. FORMANCOVA, Third Internal Medicine Clinic of Faculty of General Medicine (III. Interni klinika fakulty všeobecného lékařství) Head (prednosta) Academician J. CHARVAT, Prague.

"High Excretion of Dicarboxylic Alpha-Keto-Acids in Urine."

Prague, Časopis Lekaru Českých, Vol 102, No 10, 8 Mar 63; pp 275-276.

**Abstract:** Study of urinary keto acids in 300 persons revealed unusually high levels in several specific conditions. High alpha-ketoglutaric acid levels in a number of patients with diabetes indicate a possible Krebs cycle metabolic defect, heretofore not thought to be present in man. Graph, table; 1 Czech and 5 Western references.

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High excretion of alpha-ketodicarboxylic acids in the urine. Cas.  
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1. III. interni klinika fakulty všeobecného lekarství KU v Praze,  
prednosta akademik J. Charvat.  
(KETO ACIDS)      (URINE)      (KETOGLUTARIC ACID)

DUBOVSKY, J.; DUBOVSKA, E.; SILINKOVA-MALKOVA, E.; PACOVSKY, V.

Contribution to the biochemical diagnosis of vague osteopathies.  
Cas. lek. cesk. 102 no.12:323-324 22 Mr '63.

1. III. interni klinika fakulty vseobecneho lekarstvi KU v Praze,  
prednosta akademik J. Charvat.

(HYDROXYPROLINE) (MUCOPOLYSACCHARIDES) (PROLINE)  
(CREATINE AND CREATININE) (BONE DISEASES) (DIAGNOSIS)  
(BIOCHEMISTRY) (CHEMISTRY, ANALYTICAL) (HYPERPARATHYROIDISM)

DUBOVSKY, J.; FORMANKOVA, J.; DUBOVSKA, E.

Hydroxylysines in the urine in osteopathies with marked changes in the bone matrix. Cas. lek. cesk. 103 no.7:187  
14 F'64.

1. III. interni klinika fakulty všeobecného lekarství  
KU v Praze; prednosta: akademik J. Charvat.

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DUBOVSKY, J.; SOBRA, J.; DUBOVSKA, E.

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1. III. interni klinika fakulty všeobecného lekarství Karlovy  
University v Praze (prednosta akademik J. Charvat).

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High excretion of alpha-ketoglutaric acid in diabetics — a renal tubular syndrome. Cas. lek. cesk. 104,no.16:440-443  
23 Ap '65.

1. III. interni klinika fakulty všeobecného lekarství Karlovy University v Praze (prednosta; akademik J. Charvat); Laborator pro endokrinologii a metabolismus fakulty všeobecného lekarství Karlovy University v Praze (ředitel; akademik J. Charvat).

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1. Laborator pro endokrinologii a metabolismus pri III. interni  
klinice fakulty vseobecneho lekarstvi Karlovy University v Praze  
(reditel akademik J. Charvat). Submitted November 1964.

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relation to tyrosyluria in liver diseases. Cas. lek. Cesk.  
104 no.51:1389-1393 17 D '65.

1. Laborator pro endokrinologii a metabolismus a III. interni  
klinika fakulty všeobecného lékařství Karlovy University v  
Praze (prednosta akademik J. Charvat). Submitted October 1964.

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a renal tubular syndrome? Rev. Czech. med. 11 no.4:232-237  
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1. Third Medical Clinic, Faculty of General Medicine, Charles  
University, Prague (Director: Academician J. Charvat) and  
Laboratory for Endocrinology and Metabolism, Faculty of General  
Medicine, Charles University, Prague (Director: Academician  
J. Charvat).

DUBOVSKY, J.; DUBOVSKA, E.

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klinika fakulty všeobecného lekarství Karlovy University v  
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ANISIMOV, A.A.; KUZNETSOVA, L.A.; DUBOVSKAYA, I.S.; LIKHOVILLOVA, Ye.V.

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l. Gorky State University.

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ANISIMOV, A.A.; DUBOVSKAYA, I.S.; DOBRYAKOVA, L.A.

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KORNILOV, A.N.; ZAYKIN, I.D.; SKURATOV, S.M.; DUBOVSKAYA, L.B.;  
SHVEYKIN, G.P. (Moscow)

Standard heats of formation of tantalum carbides from the phase  
Ta<sub>2</sub>C. Zhur. fiz. khim. 38 no.3:702-707 Mr '64.

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1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova  
i Institut khimii Ural'skogo filiala AN SSSR.

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Use of dimethyldiamide of pyrazoline-3,4-dicarboxylic acid as a  
reducer for phosphomolybdic acid. Zhur. anal. khim. 19 no.8:997-  
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1. Institut eksperimental'noy meditsiny AMN SSSR i Sanitarno-  
gigiyenicheskiy meditsinskiy institut, Leningrad.

BYKHOVNE, M.A., red.; DUBOVSKAYA, M.V., red.; OPALEV, A.P., red.;  
MININ, S.S., red.; GOROVA, O.A., tekhn.red.

[Mineral resources of capitalist countries; lithium,  
beryllium, boron, fluorine, magnesium] Mineral'nye resursy  
kapitalisticheskikh stran; litii, berillii, bor, ftor,  
magnii. Pod red. M.A.Bykhovera, M.V.Dubovskoi i A.P.Opaleva.  
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geologii i okhrane nadr.  
1959. 170 p.

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1. Russia (1923- U.S.S.R.) Vsesoyuznyy geologicheskiy fond.  
(Mines and mineral resources)

SOV/152-59-4-15/17

AUTHOR: Dubovskaya, M.V.

TITLE: On the Mineral Resources of Fluorine in Capitalist Countries.

PERIODICAL: Razvedka i okhrana nedr, 1959, Nr 4, p 58 (USSR)

ABSTRACT: Some data are given on the reserves of fluorspar in the Non-Communist world.

ASSOCIATION: VGF

Card 1/1

TKACHEVA, R.E.; ORORCNEVA, V.I.; DUBOVSKAYA, M.V.; MARKOVA, Ye.I.;  
GRIGORYEV, N.P.; POPOVA, A.I.; ROZIN, M.S.; OPALOV, A.F.  
Prinimali uchastiye: ANTONOVÁ, L.N.; MALAYEV, A.A.;  
KIRILLOVA, L.D.; SOKOLOVSKAYA, Ye.Ya., red.izd-va; BYKHOVER, N.A.,  
red.; GUROVA, O.A., tekhn. red.

[Concise handbook on the mineral resources of capitalist  
countries; Asia] Kratkiy spravochnik po mineral'nym resursam  
kapitalisticheskikh stran; Azia. Pod red. N.A.Bykhovera,  
M.V.Dubovskoi i A.F.Opalova. Moskva, Gos.nauchno-tekhn.izd-vo  
lit-ry po geol. i okhrane nedor, 1961. 124 p. (MIRA 15:2)  
(Asia—Mines and mineral resources)